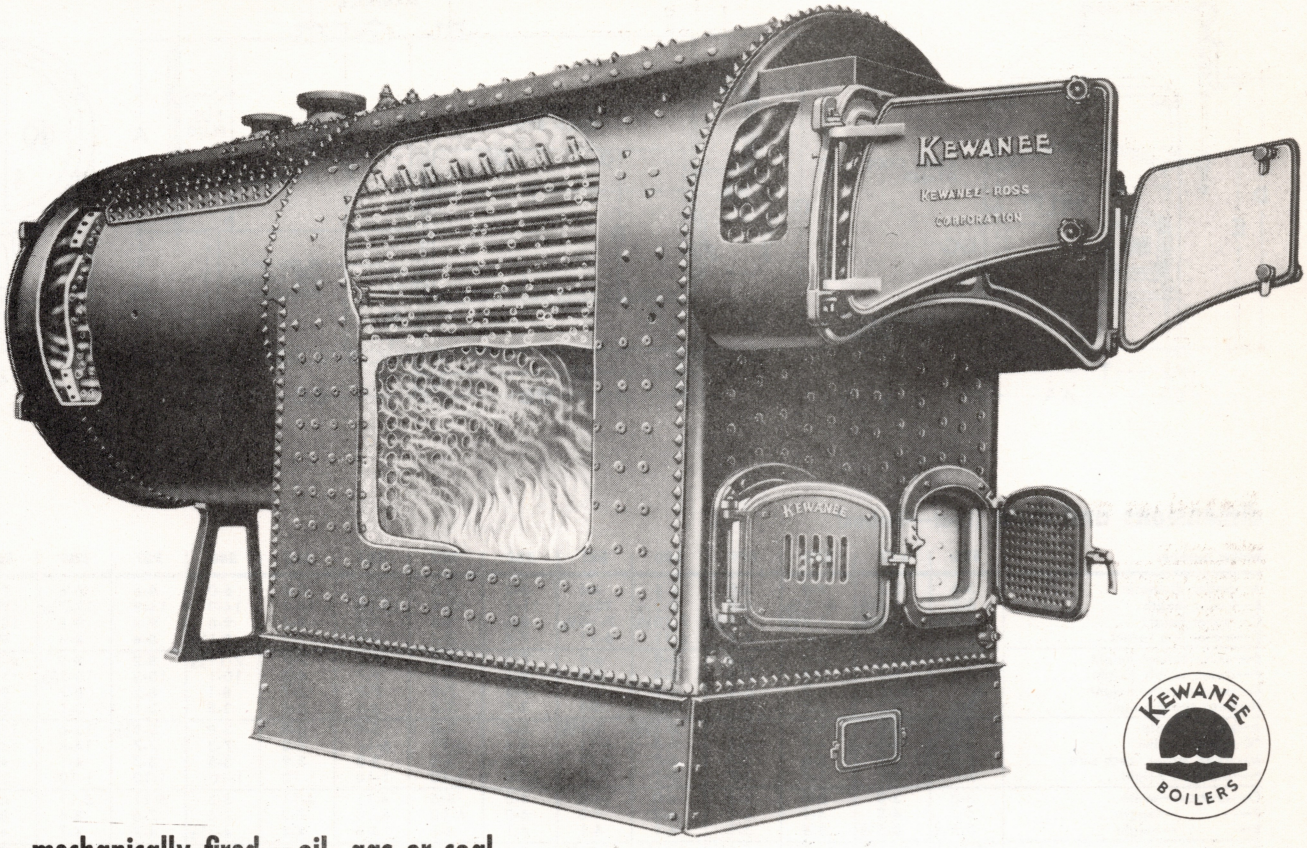
KEWANEE® 500 SERIES

125 — 150 lb swp

oil • gas or coal

A.I.A. FILE No. 34-B-1
(JAN. 1954)



ratings • mechanically fired — oil, gas or coal

boiler number	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590
rating—horsepower	30	35	39	44	52	61	74	87	109	130	152	174	217	261	304
—steam radiation....sq ft	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
—Btu per hour.....1000's	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
—steam per hour 212°F.lb	1050	1200	1350	1500	1800	2100	2560	3010	3750	4510	5260	6010	7510	9010	10510
firing rate—oil gph*.....	13	15	16	18	22	26	31	37	46	54	64	73	91	110	127
—gas Btu per hr 1000's	1910	2180	2460	2740	3280	3830	4650	5460	6840	8200	9560	10920	13670	16400	19120
heating surface (SBI min)....sq ft	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
furnace volume (SBI min)....cu ft	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
furnace height (SBI min)....ft-in.	2-6	2-6½	2-7¼	2-7¾	2-8¾	2-10	2-11½	3-1½	3-4¼	3-7	3-10	4-0¾	4-6½	5-0½	5-6
firebox vol. above mud ring cu ft	39.6	39.6	48.5	48.5	62.1	69.6	97.0	110.4	130.9	137.2	160.2	183.2	207.8	231.9	245.5
**additional furnace height for stoker (SBI min).....ft-in.														0-6	1-1
safety valve capacity															
—oil-gas fired.lb steam per hr	2000	2288	2576	2864	3432	4000	4864	5720	7144	8576	10000	11432	14288	17144	20000
—stoker fired.lb steam per hr	1750	2002	2254	2506	3003	3500	4256	5005	6251	7504	8750	10003	12502	15001	17500

*Fuel burning rates based on 150,000 Btu oil.
**Represents distance below bottom of water leg that hearth must be set for SBI minimum furnace volume and height.

Standard equipment—Front and rear base panels have 8½ x 11½ in. opening and cover plate. Flue cleaner and handle. Manhole furnished on 580 and larger. Baffle plate in rear combustion chamber furnished on 576 to 588.

Standard trim, steam only—Safety valve, steam gage with syphon and cock; water column with water-gage glass and three gage cocks, chain operated on 586 and larger.

Specifications and data are shown for mechanically-fired boilers. For information regarding hand-fired coal types consult the nearest Kewanee representative.

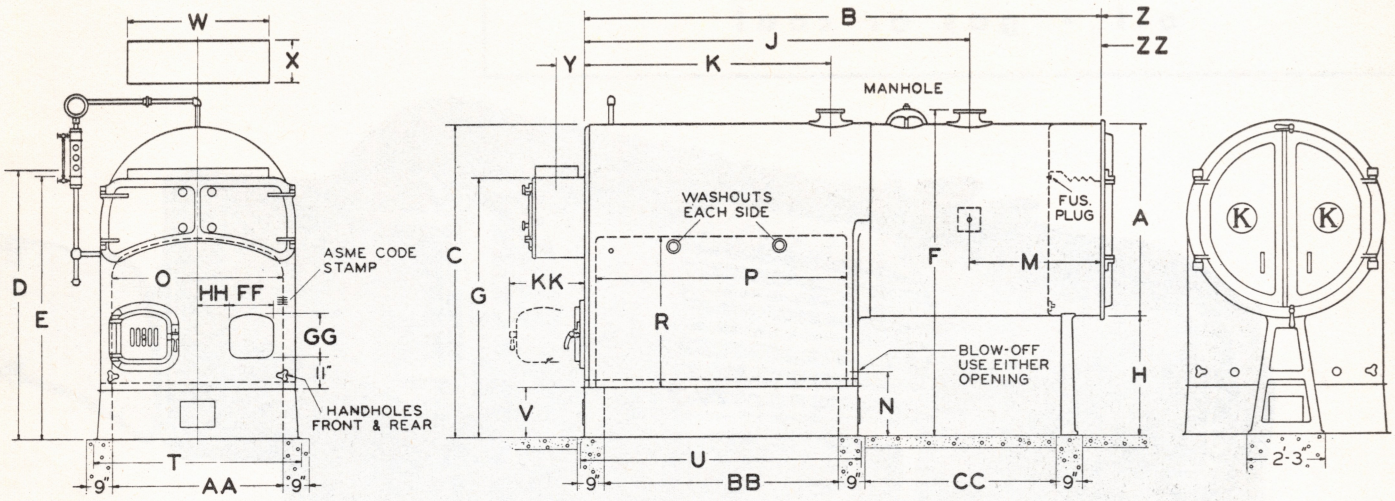
A.I.A. FILE No. 34-B-1
(JAN. 1954)

KEWANEE-ROSS CORPORATION
Division of American Radiator & Standard Sanitary Corporation
KEWANEE, ILLINOIS

KEWANEE®

500 series high pressure • oil, gas or coal fired

125 and 150 lb swp



dimensions and data (feet—inches)

boiler number	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590
A—boiler diameter	3-6	3-6	4-0	4-0	4-6	4-6	5-0	5-0	5-6	5-6	6-0	6-6	6-6	7-0	7-0
B—boiler length	8-7	9-6½	8-11½	9-8	9-2½	10-6	11-1	12-9	12-10	14-9	14-9	14-9	17-7½	17-9½	20-0½
C—boiler height	6-8½	6-8½	7-2½	7-2½	7-10½	7-10½	8-6	8-6	9-0	9-0	9-6	9-8	9-8	10-6	10-6
D—water line height	6-1	6-1	6-4	6-4	6-11	6-11	7-4	7-4	7-9	7-9	8-1½	8-4	8-4	9-0	9-0
E—water column height	5-11	5-11	6-2	6-2	6-9	6-9	7-2	7-2	7-7	7-7	7-11½	8-2	8-2	8-10	8-10
F—steam supply height	7-2	7-2	7-8	7-8	8-5	8-5	9-1	9-1	9-7	9-7	10-1	10-3	10-2½	11-0½	11-0½
G—smoke outlet height	5-11	5-11	6-2	6-2	6-9	6-9	7-3	7-3	7-7	7-7	8-1	8-2	8-2	9-0	9-0
H—rear stand height	3-2	3-2	3-2	3-2	3-4	3-4	3-5	3-5	3-5	3-5	3-5	3-1	3-1	3-5	3-5
J—steam supply	6-0	6-6	6-0	6-6	2-1½	2-1½	3-4	3-6	3-9	3-8	3-8	2-9½	12-6	12-6	13-3
*K—safety valve	4-5	4-5	4-5	4-5	4-5	4-11	6-4	6-11	6-11	7-3	7-3	7-7	14-8	14-8	16-5
M—feed water, each side	2-3	2-9	2-6	2-8	2-7	2-11	2-9	3-2	3-2	3-9	3-5	3-7	4-1	4-3	4-3
N—blow-off height	1-7	1-7	1-7	1-7	1-7	1-7	1-10	1-10	1-10	1-10	1-10	1-10	1-10	2-2	2-2
O—firebox—width	3-0	3-0	3-6	3-6	4-0	4-0	4-5	4-5	4-11	4-11	5-5	5-11	5-11	6-5	6-5
P— —length	4-2	4-2	4-2	4-2	4-2	4-8	6-0	6-10	6-10	7-2	7-2	7-6	8-6	8-6	9-0
R— —height	3-5½	3-5½	3-8	3-8	4-1	4-1	4-1	4-1	4-4	4-4	4-6½	4-7	4-7	4-9	4-9
T—base—width	3-11½	3-11½	4-5½	4-5½	4-11½	4-11½	5-6	5-6	6-0	6-0	6-6	7-0	7-0	7-6½	7-6½
U— —length	4-11½	4-11½	4-11½	4-11½	4-11½	5-5½	6-11	7-9	7-9	8-1	8-1	8-5	9-5	9-5	9-11
V— —height	1-2	1-2	1-2	1-2	1-2	1-2	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-9	1-9
W—smoke outlet—length	2-8	2-8	2-10	2-10	3-4	3-4	3-8	3-8	4-3	4-3	4-8	5-0	5-0	5-4	5-4
X— —width	0-9	0-9	0-11	0-11	1-0	1-0	1-2	1-2	1-3	1-3	1-7	1-6	1-6	1-10	1-10
Y— —location	0-6½	0-6½	0-7½	0-7½	0-8	0-8	0-9	0-9	0-9½	0-9½	0-11½	0-11	0-11	1-1	1-1
Z—rear door clearance, min	3-6	3-6	4-0	4-0	2-6	2-6	2-9	2-9	3-0	3-0	3-3	3-6	3-6	3-9	3-9
AA—foundation—width	3-0	3-0	3-6	3-6	4-0	4-0	4-5	4-5	4-11	4-11	5-5	5-11	5-11	6-5	6-5
BB— —length	3-6½	3-6½	3-6½	3-6½	3-6½	4-0½	5-6	6-4	6-4	6-8	6-8	7-0	8-0	8-0	8-6
CC—rear stand	2-9	3-8	3-0	3-8	3-3	4-0	3-0	3-10	4-0	5-6	5-6	5-2	6-10	6-8	7-0
FF x GG—firedoor opening in boiler width x height	one 2-3 x 1-1				two 1-3 x 1-3						two 1-6 x 1-4				
HH—centerline blr to firedoor opg					0-5⅜	0-5¾	0-8	0-8	0-11	0-11	0-11	1-1¾	1-1¾	1-4¾	1-4¾
KK—opened firedoor to boiler	1-8	1-8	1-8	1-8	2-3	2-3	2-3	2-3	2-3	2-3	2-6	2-6	2-6	2-6	2-6
ZZ—tube replacement space	6-10	7-9	6-10	7-7	6-9	8-1	8-4	10-0	10-1	12-0	11-8	11-4	14-2	14-0	16-3
breeching diameter—one boiler	1-7	1-8	1-9	1-10	1-11	2-0	2-2	2-4	2-6	2-7	2-9	2-11	3-3	3-5	3-7
stack—diameter	1-5	1-6	1-7	1-8	1-9	1-10	2-0	2-2	2-4	2-5	2-7	2-9	3-0	3-2	3-4
—height	45-0	50-0	45-0	50-0	45-0	50-0	50-0	60-0	60-0	70-0	70-0	70-0	85-0	90-0	105-0
breeching diameter—two boilers	2-1	2-2	2-3	2-4	2-6	2-7	2-10	3-0	3-4	3-5	3-8	3-11	4-2	4-6	4-8
stack—diameter	1-11	2-0	2-1	2-2	2-4	2-5	2-8	2-10	3-1	3-2	3-5	3-8	3-11	4-2	4-4
—height	55-0	60-0	55-0	60-0	55-0	60-0	60-0	70-0	70-0	80-0	80-0	80-0	95-0	100-0	115-0
**steam supply size	0-4	0-4	0-4	0-4	0-4	0-4	0-6	0-6	0-6	0-6	0-6	0-6	0-8	0-8	0-8
blow-off size	0-1½	0-1½	0-1½	0-1½	0-2	0-2	0-2	0-2	0-2	0-2	0-2½	0-2½	0-2½	0-2½	0-2½
feed water size	0-1¼	0-1¼	0-1¼	0-1¼	0-1¼	0-1¼	0-1½	0-1½	0-1½	0-1½	0-1½	0-1½	0-1½	0-2	0-2
***outside surface to cover . . sq ft	130	140	150	160	180	195	225	255	285	320	340	360	415	455	505
approximate weight															
—125 lb swp . . . . . lb	7980	8510	9590	10100	11700	12760	14930	16530	19230	21940	24100	26840	31210	35000	38820
—150 lb swp . . . . . lb	8780	9360	10550	11110	12870	14030	16420	18180	21150	24130	26510	29520	34330	38500	42700

*Number and size varies with valve setting. All boilers having 500 sq ft or less of heating surface furnished with one valve. Boilers having more than 500 sq ft of heating surface furnished with two or more valves. Manufacturer reserves right to use separate outlets or yokes as conditions require.

**300 lb American Standard Flange.

***Includes front head and smokebox.

KEWANEE-ROSS CORPORATION

Division of American Radiator & Standard Sanitary Corporation

KEWANEE, ILLINOIS

CIRCULAR 105